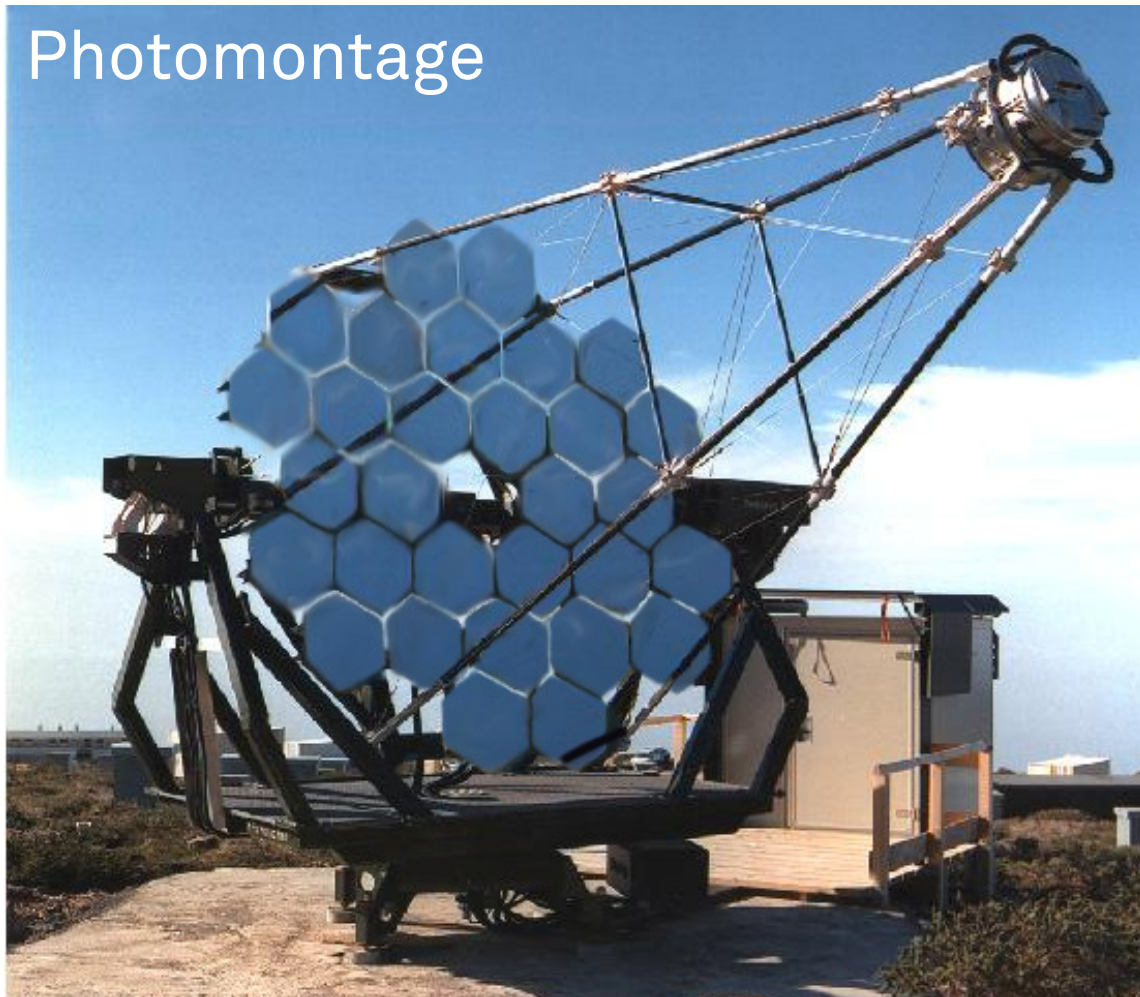


FACT – the first Cherenkov Telescope using a G-APD Camera for TeV Gamma-ray Astronomy

Photomontage



- Mount of former HEGRA CT3 (La Palma)
- New drive system (as in MAGIC)
- New mirrors
- New camera
 - **First G-APD camera for an IACT**
 - Solid light concentrators
 - Fully embedded DAQ

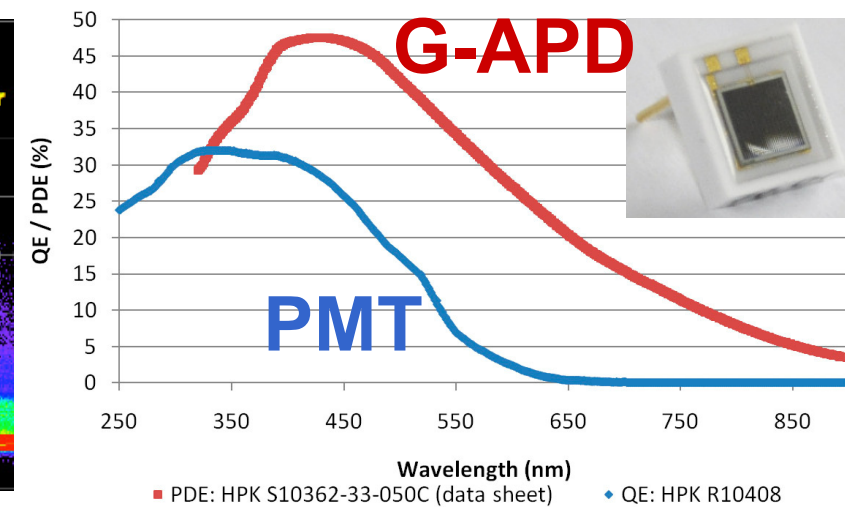
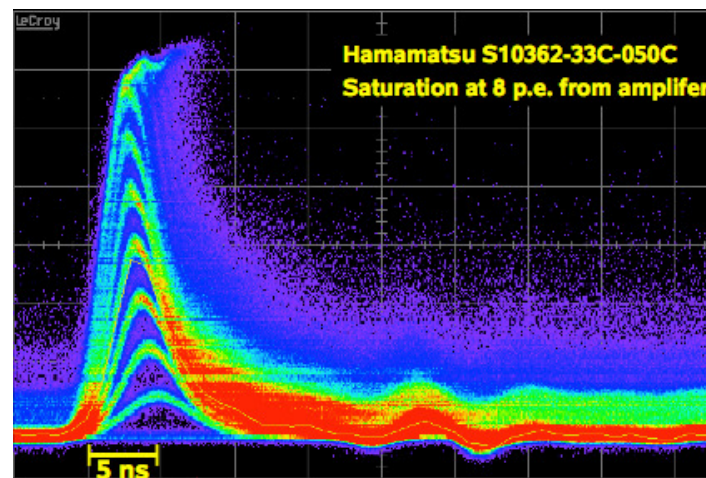
Goals

- Test whether G-APDs are suitable for next generation IACTs (CTA, AGIS, ...)
- Crab Nebular observations next season
- Long-term monitoring of near blazars in the DWARF network



G-APDs

- Novel photosensors with potential to replace PMTs
- Single p.e. resolution
- High PDE
- Negligible time-jitter
- Not damaged by bright light
- Very compact & robust
- Not used in IACTs, **yet**

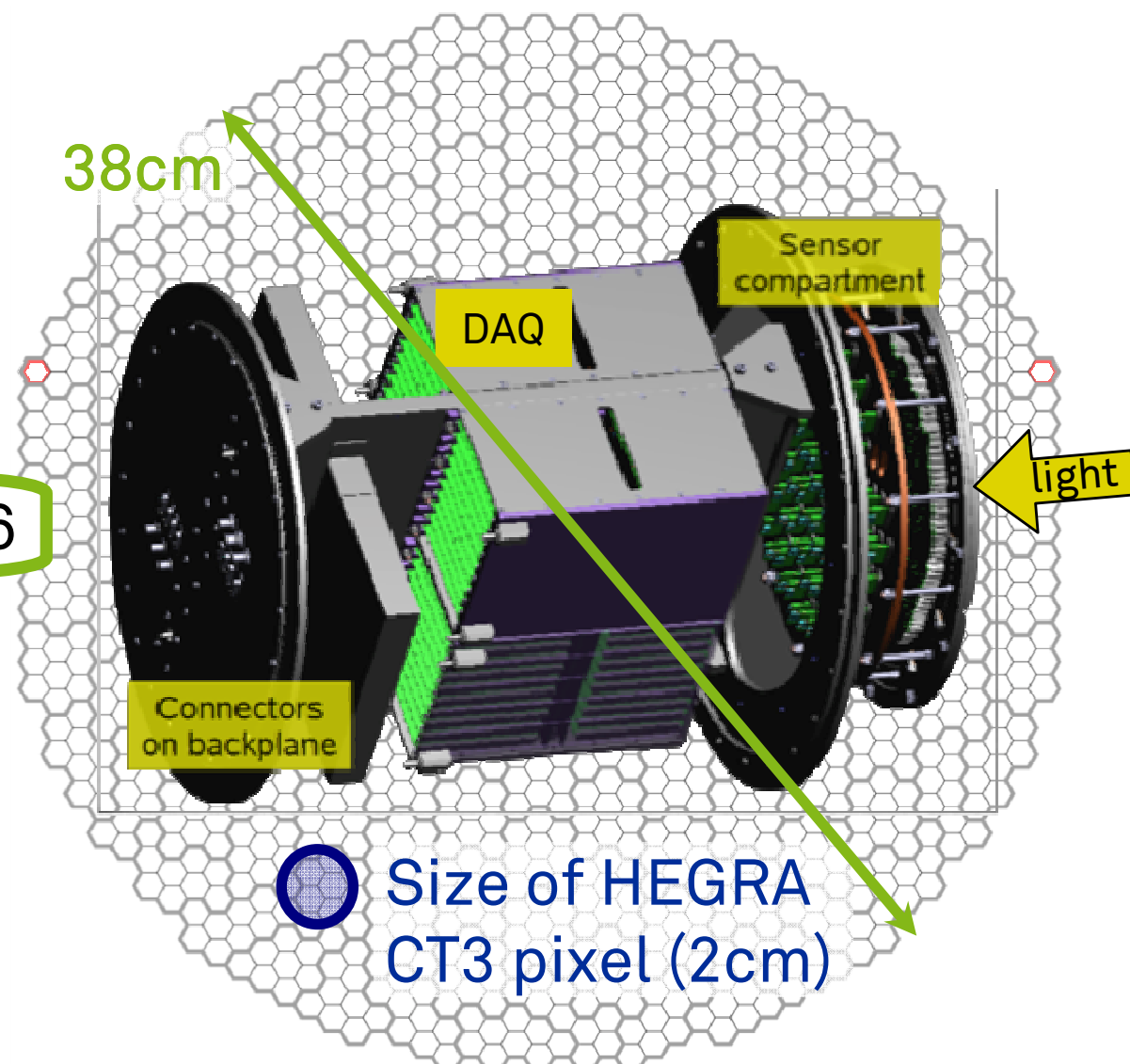


G-APD Camera for FACT

- Prototype successfully tested
- 1440 pixel
- Fully integrated DAQ

T. Krähenbühl+ T 86

- Based on DRS4
- 2GHz sampling
- Analog sum of groups of 9 pixels for trigger



M. Backes & T. Krähenbühl for the FACT collaboration